

Monday 15 September 2025 at 14:30 - 17:30 CET

Technical Tour: Waste-to-energy plant with CO2 capture

ARC and the upgraded CCS project

ARC (Amager Resource Centre) is a waste treatment company owned by five municipalities in Copenhagen. ARC runs the waste-to-energy plant Amager Bakke, 10 recycling centres, plus 12 minor near/local recycling stations etc., and handles waste from 670,000 citizens and 68,000 companies. In 2024, ARC incinerated almost 610,000 tons of non-recyclable, residual waste and turned it into 198 GWh of electricity and 1,363 GWh of district heating. The vision of ARC is to make waste treatment and incineration net zero/carbon neutral. One step is by implementing an extra cleaning filter that captures CO₂ from the flue gas. In 2025, we established the CopenCaptrue project in collaboration with the German energy company E.ON. The partnership aims to capture 400,000 tons of CO₂ annually by 2030. A demonstration project began in 2021 and is now on its third demonstration unit. This is the first CCS project connected to a waste-to-energy plant in Denmark. The technology behind carbon capture is extremely energy intensive. By integrating CO₂ capture into the district heating system, ARC's demonstration project aims to show that CO₂ capture can be achieved with neutral energy consumption.

Meeting place: DGI Byen (Conference venue), Tietgensgade 65, DK-1704 Copenhagen

Programme

Transport from DGI Byen to ARC waste treatment plant and back

Presentation on Waste treatment in ARC and the Waste-to-Energy and Carbon Capture project

Guided tour incl. visit at CCS test facility and an optional visit to the recreational rooftop

Sandwich and refreshments

Limited number of seats

More information and registration via [Conference website](#)

Tuesday 16 September 2025

08:00-09:00	Registration and breakfast
09:00-10:45	Plenary opening session
09:00-09:15	Opening speech
09:20-09:50	Keynote ŞIIR KILKIŞ: Smart Energy Systems Targeted Mitigation in Urban Areas for Avoiding Increments of Global Warming
09:55-10:25	Keynote ASBJØRN HAUGSTRUP: Outlook: Why is the heating of our homes attracting increased political attention and what is its role in Smart Energy Systems if we are to meet political targets?
10:25-10:45	Debate

10:45-11:15 Coffee and networking in sponsor area

11:15-13:00 Parallel sessions

Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Special session	Special session
4th Generation District Heating concepts, future district heating production and systems	Components and systems for district heating, energy efficiency, electrification and electrofuels	Planning and organisational challenges for smart energy systems and district heating	4th Generation District Heating concepts, future district heating production and systems	Smart energy system analyses, tools and methodologies	Planning and organisational challenges for smart energy systems and district heating	Special session on Nordic Hydrogen Valleys	Special session on Energy communities and positive energy districts
Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair: Iva Ridjan Skov	Chair: Mark Wiering
Session keynote Sven Werner: Thermal lengths in district heating systems	Session keynote Jakob Nymann Rud: Transition to an Electrified and Low Temperature Heat Supply in Copenhagen	Session keynote Bent Ole Gram Mortensen: Price caps as part of the green transition	Session keynote Jan Eric Thorsen: Reducing district heating return temperatures by cascading concepts	Session keynote Jack M. Kristensen: Harnessing AI and IoT to Unlock Household Electricity Flexibility for a Smarter Energy Future	Session keynote Connie Ocando: Empowering the DHC Sector: Focus on Education and Skills	Session keynote Anne Neumann: Analyzing Regulatory Instruments for Emerging European Hydrogen Markets	Peter Sorknæs: North and South, what is the difference: Energy communities across the Europe
Naomi Adam: Environmental Trade-Offs in Collective Heating Systems: A Life Cycle Perspective on Cluster Size	Pauli Hiltunen: District heating providing flexibility for the North European electricity system	Laura Kuper: Economic Risk Assessment of District Heating Network Topologies: A Scenario-Based Analysis of Consumer Connection Rate Uncertainties	Jerik Catal: Optimized Buildings for Decarbonized District Heating: A Measures Catalogue for Reducing Temperatures, Enhancing Flexibility, and Cutting Costs	Antti Solonen: Demand Side Response in large scale: the Virtual Heat Storage concept	Matteo Pozzi: Bridging the skills and competence gap in District Heating & Cooling: the DHC Academy Alliance	Rasmus Bramstoft: Nordic and European hydrogen production in an uncertain future	Jelena Nikolic: Energy Cooperatives legal framework: Differences and similarities in Denmark, the Netherlands, and Norway
Nina Dungworth: Practical considerations and results of optimising residential heat networks, focusing on consumer connection retrofit works	Rasmus Frost Lund: 200 MW air source heat pumps for district heating: Challenges in large-scale application	Tim Mandel: Who pays, who benefits? Multi-stakeholder cost-benefit analysis for strategic heat planning in three German neighbourhoods	Dabrel Prits: A Data-Driven Framework for Assessing Building Readiness for Low-Temperature District Heating	Axel Johansson: Exploring the Possibilities of Using Day-Ahead Environmental Impact Forecasts for Electricity Generation	Jelena Ziemele: Achieving Carbon Neutrality in District Heating: Lessons Learned from the Climate City Contract of the City of Riga	Frederik Dahl Nielsen: Nordic Hydrogen Hubs: A Multi-Model Framework for Regional Integration towards 2040	Minh Thu Nguyen: Inclusive communication ecology for smart energy systems: Case studies from Positive Energy Districts across Europe
Stanislav Chicherin: Design and Integration of 5th Generation District Heating and Cooling Systems: Economic Viability, Technical Methodologies, and Urban Applicability	Davide Rizzi: High-Temperature, Large-Scale Heat Pumps: The Key to Decarbonizing Energy Systems	Anna Lackner: Decarbonization Pathway Optimization and Risk Assessment for District Heating applied to a Polish Case Study	James Gallimore: Optimising heating and hot water systems in non-residential buildings prior to integration with low-carbon heat networks	Michael Krause: The impact of heat pumps on the electricity load: Evaluation of large sets of operational data including the simulation of future situations	Lennart Trentmann: Combining High Temporal and Spatial Resolution of District Heating Network Design – A Iterative Approach of DHN and Supply Structure Design	Marie Münster: Exploring the competition between e-fuels and negative emissions for decarbonizing international transport in the Nordics	Martijn Gerritsen: Varieties of PEDs: Positive Energy Districts as building blocks for strategic energy planning at the local level
Charlie Prétot: Innovative architectures of thermal source networks	Abdulrahman Dahash: Techno-economic advantages of coupling large-scale seasonal thermal energy storage with heat pumps in district heating systems	Daniel Møller Sneum: Financing district heating investments	Simran Chaggar: A data driven approach within retrofit design to reduce emitter upgrades for commercial buildings connecting to low-temperature heat networks	Théo Balanza: The role of flexibility in a sector-coupled European energy system	Jonathan Hachez: Methodology to develop an investment plan for heating and cooling systems under climate uncertainty	Johannes Giehl: Power-to-X for Green Fuels: Techno-Economic Optimization of Energy Hubs Under Different Power Supply and Carbon Pricing Scenarios	Annette Steingrube: Practical implications of the positive Energy District concept
Esther Borkowski: Enhancing Model Accuracy in Grid-Integrated Building Control: A Semi-Systematic Literature Review of Hybrid Modelling Approaches	Francesco Neirotti: From waste to value: Circular Thermal systems and heat pumps driving industrial energy efficiency and decarbonization	Jan Markowski: Intelligent energy management in compressed air energy systems on the base of inverse problem solving	Julian Plautz: Thermohydraulic Modeling and Simulation of a District Heating Network for the Optimization of Building Refurbishment Strategies	Lorenzo Mario Pastore: On the role of hydrogen in 100% renewable energy systems: an assessment of applications, costs and infrastructure in Italy by 2050	Nicolas Marx: Early-stage techno-economic assessment of DHC networks and individual systems - The FAST-DHC web-tool and its application to a UK case study	Frederik Fristed: Hydrogen and CO2 infrastructures for Nordic maritime decarbonisation: a self-sufficiency perspective	Mario Mihetec: Energy Communities and Smart Systems: Catalysts for a Rapid Renewable Energy Transition
						Maria Grahn: Under what circumstances can hydrogen become a cost-effective fuel choice for a future global fleet of heavy-duty trucks	

13:00-14:15 Lunch and networking							
14:15-16:00 Parallel sessions							
Session 9	Session 10	Session 11	Session 12	Session 13	Session 14	Special session	Special session
Institutional and organisational change for smart energy systems and radical technological change	Smart energy system analyses, tools and methodologies	Smart energy infrastructure and storage options	Integrated energy systems and smart grids	Smart energy system analyses, tools and methodologies	Planning and organisational challenges for smart energy systems and district heating	Special session on Power-to-heat and thermal energy storage for faster and more affordable decarbonization	Special session on Energy transition and decarbonisation in the district heating sector
Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair: Hanne Kauko	Chair: Mariusz Tańczuk
Session keynote Kristina Lygnerud: The impact of social sustainability on district heating competitiveness	Session keynote Mirko Morini: Predictive controller for optimal hydrogen generation and injection into the natural gas network	Session keynote Ralf-Roman Schmidt: Risk Assessment for Seasonal Thermal Energy Storage in District Heating Networks	Session keynote Isabelle Best: Dynamic supply temperature optimization of a complex nested district heating network	Session keynote Carlos Santos Silva: Using ENERGYPLAN to model energy systems with high spatial resolution: the case study of mainland Portugal electrical system	Session keynote Lisa Hjerrild: Regulatory challenges of energy communities	Session keynote Stian Backe: Quantitative Impact of Flexible Thermal Energy Resources in Future European Energy System Pathway	Session keynote Jacek Kalina: What can we do in Bucharest? The issues of decarbonising large district heating systems
Frede Hvelplund: Fundamental policy changes in a transition from around 50% to around 100% Renewable Energy	Dana Orsolits: Coupling Power System and Gas Grids Through Dynamic Hydrogen Injection: Enhancing Flexibility in Smart Energy Systems	Jānis Narbutis: Optimization of Thermal Energy Storage in Building Facades Using Phase Change Materials and Accumulation Tanks	Steen Schelle Jensen: Potential of real-time end to end optimization of the full district heating system from heat source to distribution and demand	Anders N. Andersen: The role of Non-Asset Traders in the European Day-ahead and Intraday electricity markets	Viktória Illyés: Adopting low-temperature heating and cooling networks in the core of sector-coupling energy communities: a multidisciplinary task	Till Holmes: The role of thermal energy storage in providing flexibility for the decarbonization of industrial process heat and district heating	Vilūnė Lapinskienė: Decarbonizing the Vilnius District Heating System: Modernization of the Heat Source in Naujoji Vilnia
Ruta Vanaga: Integrated Approach for Sustainable Urban Energy Transition: Citizen Engagement, System Dynamics Modeling, and Immersive VR Decision-Making Tools	Diamantis Almpantis: Smart Control Strategies for direct coupled PV-PEM Hydrogen Systems: Real-Time Optimization with Machine Learning Support	Martin Sollich: Optimal Heat Storage Sizing for District Heating Networks to Maximize Electricity Revenue from Combined Heat and Power Units	Jacobus van Rooyen: Operational strategy optimization under dynamic electricity prices; utilizing tank storages and high temperature seasonal storages	Enno Wiebrow: Enhancing Flow-Based Market Coupling with Uncertainty and Forecast Integration for Renewable Energies	Saltanat Kuntuarova: Game-theoretic modeling of energy-sharing communities within integrated district heating and electricity systems	Sebastian Zwickl-Bernhard: Defining Flexibility: A Key Performance Indicator Framework for District Energy Systems under Uncertainty	Łukasz Jendryasek: Modernization of a Cogeneration-Based DH Network: Low-Temperature Heat Recovery and Dual Heat Pump Integration in Opole Poland
Pascal Fröhlich: Historical Cost-Optimised Expansion of Renewable Energy Sources	Bernd Riederer: Smart control of hydrogen-based multi-energy systems	Benedict Brosius: Optimal real-time operation of smart energy systems with seasonal storage under uncertainty	Marius Güths: Optimization of energy flows with differing optimization goals on quarter level	Mikkel Bue Lykkegaard: Data Compression for Time Series Modelling: A Case Study of Smart Grid Demand Forecasting	Enric Gonzalez Gonzalo: Key findings on organizational and planning challenges across different actors on PEDs	Lill Mari Engan: Impact of Seasonal Thermal Energy Storage on the Power System at Different Latitudes	Mariusz Tańczuk: Integration of distributed waste heat sources into second-generation district heating systems – technical and economic challenge
Hironao Matsubara: Progress of Regional Decarbonization in Japan and Challenges to Realization	Mathieu Patin: Benchmarking Control Strategies for Multi-Stack Electrolyser Systems under Renewable Energy Variability	Paul Volk: Renewable district heating systems in rural areas considering seasonal storage & decreasing use of biomass	Jinze Li: Hybrid Renewable Energy Integration for Oil and Gas Power Supply: Optimization and Feasibility in China	Ona Vassallo: From combustion to conversion: Impact of heating demand decrease on district heating systems	Fabian Ochs: Design Workflow for Optimized Heat Pump Systems for Positive Energy Districts	Sverre Stefanussen Foslie: Decarbonizing industrial process heat demands using hybrid solar thermal and photovoltaic systems in combination with thermal energy storages	Andrea Menapace: Unlocking Waste Heat Potential for District Heating Systems
Alessandro Mati: Fueling sustainable aviation: prospects for electrofuels and policy frameworks	Ruben van den Berg: Driving decarbonization: evaluation of a case study of green hydrogen-based transport in Nieuwegein, the Netherlands	Curtis Meister: Data-Driven Surrogate Models of Seasonal Thermal Energy Storage for MPC Applications – A Case Study on the Dronninglund Pit Storage	Jihong Hang: Developing strategies for the electrification of Oil and Gas Industry in China	Abdul Azzam: A Model Predictive Control Framework for Integrated Thermal and Electric Systems in Multi-Energy Grids	Katharina Esterl: Importance of integrating models within a broader systematic perspective when planning local energy systems	Whitney Trainor-Guitton: Underground Thermal Energy Storage for Space Cooling: Reducing Electricity Grid Costs and Stress from National to District Scale	Per Alex Sørensen: Know-how package and toolkit for transition of DHC systems using low temperature sources and heat pumps
						Hanne Kauko: Reducing grid impact of zero-emission passenger ports through power-to-heat and thermal energy storage	Marcel Barzantny: Cracking the code of PTES – the impact of atypical geological conditions on seasonal heat storage performance in Opole
16:00-16:30 Coffee break							

16:30-18:15 Parallel sessions							
Session 17	Session 18	Session 19	Session 20	Session 21	Session 22	Session 23	Session 24
4th Generation District Heating concepts, future district heating production and systems	4th Generation District Heating concepts, future district heating production and systems	GIS for energy systems, heat planning and district heating	Renewable energy sources and waste heat sources including PtX for district heating	Energy savings in the electricity sector, buildings, transport and industry	Smart energy system analyses, tools and methodologies	Smart energy system analyses, tools and methodologies	Planning and organisational challenges for smart energy systems and district heating
Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed	Chair to be confirmed
Session keynote Anna Cadenbach: Influence of sector coupling on a district heating system in a German town: thermal simulation and comparison of different supply scenarios	Session keynote Morten Karstoft Rasmussen: End-user installation monitoring, diagnosing, and optimization at a very large scale	Session keynote Steffen Nielsen: Mapping of CO2 infrastructure in Denmark: A cost comparison of decentralized and centralized e-fuel production	Session keynote Dagnija Blumberga: Gaseous Bioresources Towards Climate Neutrality	Session keynote Leif Holm Tambjerg: Renewable and Affordable Industrial Process Heat supplied from District Heating	Session keynote Erik Ahlgren: Modeling long-term sectoral integration in urban energy transitions	Session keynote Wojciech Kostowski: Beyond conventional cooling - investigation of the impact of RHTV implementation into the Linde refrigeration cycle	Dietrich Schmidt: Perspectives on the digitalization of the district heating systems
Ina Herrmann: Analysis of peak load reduction with configuration of district heating controllers and a newly developed optimization box	Charlie Davies: Developing a heat loss key performance indicator for district heat networks	Giulia Spirito: HeatNODE, a cost-optimized model for the creation of the Italian Atlas of potential district heating networks to recover industrial waste heat	Sander Dijk: Balancing the energy system: a system-integrated approach to enlarge biomethane feed-in capacity into the gas infrastructure and reduce fossil fuels	Oddgeir Gudmundsson: Revealing the Hidden Potential of Energy Efficiency in DH Networks	Yassine El Alali: Comparison of community-based and individualized energy scenarios in the urban energy transition using multi-objective optimization	Nils Zimmerling: Monitoring of district heating concrete ducts by measuring thermal parameters	Johan Granberg: Electricity grids in Energy Islands - A future scenario analysis with cyber security implications
Anna Dell'Isola: Upgrade of a Virtual 5th Generation District Heating and Cooling Network through Optimal Control	Avril Bullock: Achieving 4th-generation heat network performance by converting an existing UK communal heating system from a 4-pipe to a 2-pipe network	Alejandro Zabala Figueroa: GIS-based data-driven simulation of load profiles in industrial and urban areas	Rikke C. Pedersen: A techno-economic analysis of infrastructure for CCS: Can biogas facilities benefit from a shared CO2 conditioning system?	Michał Majchrzyk: Improving system efficiency using low temperature and latent waste heat	Martina Capone: A Simulation-Optimization Framework to Support the Transition of District Heating Systems	Nicholas Tedjosantoso: Tensor-Based Modeling Framework for District Heating Pipes	Jakub Skórczynski: Cyber Resilience Act and NIS2: Two legislative initiatives on cybersecurity that might change the way we work with smart energy systems
Simon Müller: Optimizing the Operation of a Thermal Source Network Based on a Digital Twin Using Matlab/Simscape	Lucrezia Manservigi: Diagnosis of faults in district heating network components	Marina Georgati: A spatial assessment of the district heating potential in Europe	Alisson Julio: From Carbon Neutrality to Negative Emissions: Evaluating the Impact of CCUS on Energy Systems and Power-to-X supply	Valentin Kaisermayer: Smart System Integration of Waste Heat Recovery, Heat Pumps and PV to Unlock the Energy Potential of Thermal Baths	Paula Oberfeier: The role of reversible heat pumps in decarbonizing the heating sector under rising temperatures	Ingeborg Treu Røe: Smart integration of renewable energy technologies in heat- and power-intensive industries in Europe	Marja Heikkinen: Energy system modelling of urban infrastructures and energy storage – quantifying the impacts of policy (in)coherence
Nermina Abdurahmanovic: Simulation-based validation of an AI-supported operation strategy for sector-coupled district heating system	Sajedah Roustaei: Data-driven approach for diagnosing inefficiencies and optimizing district heating networks	Alina Kerschbaum: Spatially-Explicit Technical Potential of Onshore Wind Energy in Germany: A Regulatory and Geographical Assessment	Christian Schützenhofer: Excess heat availability from a net zero emissions industry: sector-specific potentials considering widespread electrification and carbon capture	Xin Bin: Cost-Effective Retrofit of Heat Exchanger Networks in Dairy Industry: Integrating CIP Scheduling and Multiple Utility Sources	Michel Noussan: Evaluation of the hourly GHG intensity profiles of high-temperature heat pumps in industrial applications	Bram van der Heijde: Energy flexibility from smart district heating and cooling control in smart energy systems: An updated review	Eike Schuler: Do common multi-stage energy planning models underestimate regrets in the face of long-term uncertainties?
Theda Zoschke: Demonstration of model predictive control for optimal power dispatch in a district heating network with decentralized producers	Alireza Etemad: A Multi-Scale Analytical Framework for Assessing Flexibility, Feasibility, and Performance of Decentralised 4th-Generation District Heating Systems	Anton Achhammer: The impact of hydrogen underground storage on fair partnerships: A GIS-based integration of salt caverns into PyPSA-Earth	Hrvoje Dorotić: Participation of district heating systems in balancing power markets via power-to-heat technologies	Rachel Parziale: Monitoring the heat and electricity requirements in 4 northern German heat pump districts	Ivan Sukhanov: Adaptive demand-based logic for the Heat pump using supervised machine learning algorithms	Alejo Silvarrey Barruffa: IIsim: an source to source compiler of industrial process simulation models	Théodore Fontenaille: Rural Heating Networks: A Processual Approach for Overcoming Challenges and Identify Levers

Wednesday 17 September 2025

09:00-10:45 Parallel sessions

Session 25	Session 26	Session 27	Session 28	Session 29	Session 30	Special session
Smart energy system analyses, tools and methodologies	CCUS and PtX technologies and the production and use of electrofuels in future energy systems	Electrification of transport, heating and industry	4th Generation District Heating concepts, future district heating production and systems	Planning and organisational challenges for smart energy systems and district heating	Energy savings in the electricity sector, buildings, transport and industry	Special session on Medium-duration thermal energy storage – Technologies, capacities and challenges - A Joint Workshop by IEA-ES Tasks 42, 44, 45
Chair to be confirmed Session keynote Costanza Saletti: RECoS – An open-source tool for multi-energy system analysis	Chair to be confirmed Session keynote Mehdi Savaghebi: Unlocking Frequency Ancillary Services Potential in Eco-Industrial Clusters	Chair to be confirmed Session keynote Andra Blumberga: Unintended long-term consequences of short-term climate and energy policy decisions: the case of diffusion of electric vehicles	Chair to be confirmed Session keynote from Ørsted (to be confirmed)	Chair to be confirmed Session keynote Benedetto Nastasi: Renewable District Cooling by leveraging renewable energy sources via advanced energy storage systems	Chair to be confirmed Session keynote Lukas Kranzl: Implementing the EPBD: the impact of policy settings on energy savings and heating system mix	Chair: Peter Sorknæs Jianhua Fan: Water pit thermal energy storage for district heating system
Gabriele Fambri: Deep reinforcement learning to explore multi-energy systems: a methodological approach	Hossein Nami: Grid Capacity-Aware Investment Roadmap for Sector-Coupled Industrial Clusters	Marko Starčević: The Role of Electric Vehicles as Flexible Consumers in Energy Communities	Session keynote Shiyan Chang: Decarbonization of district heating in China	Jacob Estevam Schmiedt: Data for Optimizing Heat Supply Systems in Existing Districts	Ece Özer: Bi-Level Optimization for Designing Subsidy Schemes for Staged Energy Retrofits in Residential Buildings	Gerald Englmaier: Latent thermal energy storage for data center application
Gerrid Brockmann: Analysis of District Heating Network Configurations for a Suburban Region: a Sensitivity Study about the Heat Demand Density and Supply Temperature	Karl Vilén: Impacts of Capacity Pricing Mechanisms and Motivation Tariffs in District Heating	Arven Sylva: What is the interplay between smart charging, V2G and distributed charging infrastructure as flexibility options in the Swiss energy system?	Dennis Lottis: Simulation Study on Optimizing Substations: Challenges and Solutions in the Transition to Fourth Generation District Heating Systems	Daniel Zinsmeister: Transforming the Heating Sector: A Techno-economic Analysis of Munich's Local Heat Transition Planning	Lars Hellemo: Striving for realism in analyses of building retrofit potential for the green energy system transition with agent-based modelling	Ming Chen: Potentials of molten salt for medium duration thermal energy storage
Ethan St. Catherine: Heat Network Metering and Monitoring Standard: Regulating metering systems within UK heat networks	Falk Birett: Mapping the Gap: Analyzing the Status and Future Prospects of Power-to-X Deployment in Germany	Endeshaw Bekele: Optimal Strategies for a Zero-Emission Transport Sector in 100% Renewable Energy Cities	Femke Janssen: Roll-Out Strategy Optimization for District Heating Networks	Lars Goray: F Heat – An Open Software Ecosystem for Municipal Heat Planning	Astrid Leitner: Real-World Implementation of Residential Energy Management Systems: Balancing Thermal and Electrical Energy	Morten Herget Christensen: Heat pump and e-boiler hybrid systems for charging of thermal energy storages – Techno-economic analysis of district heating and industry applications
Tuomas Vanhanen: Comparison of carbon neutrality strategies on the peak power demand of a Nordic city	Julian Straus: Modelling details matter – Representation of electrolysis in energy system models	Antonia Golab: Density and speed of public charging infrastructure rollout: Accelerating the electrification of the passenger car stock at the federal state level	Giulia Anna Maria Castorino: Energy and economic analysis of technologies suitable for energy transition in the hospital sector	Abdulraheem Salaymeh: Techno-Spatial Evaluation of the Practical Usability of Industrial Waste Heat in Urban Heating Systems	Robert Puknat: Optimizing residential energy systems in low-energy houses in timber-frame construction using Smart EMS for dynamic electricity pricing	Adriano Sciacovelli: Carnot Batteries: Technological capabilities, challenges and emerging trends from IEA-ES task 44
Budareld Mbumba: Challenges and prospects of electricity access in Angola	Alexander Meisinger: Financing energy partnerships beyond Europe through H2Global: A case study on the way to a German-African energy transition	Delight Ezech: Techno-economic assessment of flexible electrification systems for heat decarbonization in hard-to-abate industries	Andrea Franzoso: Multi-Agent Deep Reinforcement Learning for Optimized Operation of Industrial Energy Systems	Oskay Ozen: A Qualitative Investigation of German Manufacturing Companies' Efforts to Incorporate Sustainability Into Production Site Transformations	Jonas Hoppe: Renovation paths of single-family-houses and their impact on the heat transition in German districts	Alice Tosatto: Optimizing large-scale Thermal Energy Storage Envelope Design for Enhanced Energy and Exergy Efficiency in District Heating Systems
			Bart Homan: Exploring options for optimizing the energy consumption, production and storage of the Ecofactorij business park using HIL simulation			

10:45-11:15

Coffee and networking in sponsor area

Thursday 18 September 2025 at 08:20 - 11:30 CET

Technical Tour: Energy renovation of buildings

Introduction to building renovations and visit to renovated building

Building renovation plays a vital role in the green transition. With buildings responsible for nearly 40% of global energy consumption and a significant share of CO₂ emissions, energy-efficient building renovation is essential to meet climate targets. In Europe, up to 95% of the 2050 building stock already exists – making renovation, rather than new construction, the key to a sustainable future. During the tour of Industriens Hus, State of Green will first present their latest White Paper on “Building Renovations” in the “House of Green”, an interactive showroom and visitors’ centre, followed by a tour of the “Confederation of Industry’s” renovated building.

Meeting place: Industriens Hus (Danish Industry), H.C. Andersens Boulevard 18, DK-1553 Copenhagen

Programme

08:20: We meet at the Reception in Industriens Hus. Participants can leave luggage and coats at the reception.

08:30-09:30: Walk to House of Green. Coffee and introduction to the green transition of Denmark and presentation on Energy Renovation of Buildings.

09:40-11:00: Guided tour in the renovated building and presentation of green, smart energy solutions. During this part, participants are divided into groups.

11:00-11:15: View from roof top.

11:15-11:30: Refreshments and end of tour

Limited number of seats

More information and registration via [Conference website](#)